

June 24, 2014

Drs. Kadeli, Kavlock, Olden, Vandenberg, and Cogliano  
US EPA, National Center for Environmental Assessment  
Research Triangle Park, North Carolina (Conveyed via e-mail)

Subject: Boycott of EPA's June 2014 IRIS inorganic arsenic and hexavalent chromium meeting

The US EPA's June 2014 meeting on arsenic and chromium health impacts is dominated by industry speakers. More than 80% of the speaking slots addressing arsenic and 97% of the slots dealing with hexavalent chromium are filled by speakers funded by companies with financial interests in the outcome of EPA's health hazard evaluations. Consulting firms and individuals funded by industry interests and the American Chemistry Council are the only speakers in some sessions and vastly outweigh the few "public interest" speakers overall (Attachment A lists speakers). This "public" meeting is extremely unbalanced and is on track to communicate a very skewed interpretation of the science integral to health assessments for arsenic and chromium.

Inorganic arsenic and hexavalent chromium cause cancer, genetic damage, birth defects and numerous other serious health problems. They contaminate drinking water and are common air pollutants. They pollute the land in many industrial and traffic-polluted residential areas. Environmental justice communities with higher background rates of health problems are more severely impacted by these and other environmental pollutants. Many workers are exposed to arsenic and chromium. All of these people and the public health community responsible for their protection require unbiased health hazard information. Extensive public exposure and potential for serious harm mandate that EPA obtain the best available scientific information.

The National Academy of Sciences panel reviewing the EPA's approach to chemical hazard evaluations urged EPA to improve their health evaluations through increased public input. In spite of that, industry participants dominated many recent EPA public input meetings and this meeting repeats that pattern. The EPA's management has again failed to adequately involve the public, despite claiming that they want to "level the playing field". There are many interested non-industry scientists. So it appears that in reality the goal was to minimize balance and avoid a diversity of opinions.

Although the EPA claims it did outreach to improve participation, the most obvious source of public input is health scientists who previously provided input. This letter's endorsers provided recent input to EPA on arsenic and have clear scientific competence (e.g., scientific publications on arsenic and chromium). Yet there was no outreach to these scientists by the EPA regarding participation in the meeting. At no time were we informed that there was an opportunity to provide more than the usual 5 minute statement at the end of the meeting, typically after most people have left the room. This is not a viable option for meaningful public input.

Honest communication regarding the serious issue of obtaining balance in science and policy is fundamental, but appears lacking in this case. Balanced scientific input is also necessary, yet has been studiously avoided. As a result of this we must ask whether the EPA is wasting the public funds by holding this meeting and more importantly, is betraying the public's trust.

As Dr. Ronald Melnick wrote: "The only appropriate title for this meeting is "The Industry Perspective on the Safety of Chromium and Arsenic - Two Known Human Carcinogens.""

We have no choice but to boycott this unbalanced meeting.

Kathleen Burns, Ph.D.  
Director, Sciencecorps  
Lexington, MA

James Huff, Ph.D.  
Associate Director for Carcinogenesis at NIEHS (retired)  
Raleigh-Durham, North Carolina

Ronald Melnick, Ph.D.  
Cancer Researcher, NIEHS (retired)  
Raleigh Durham, North Carolina

Michael Harbut, MD, MPH, FCCP  
Clinical Professor, Wayne State University  
Detroit, Michigan

Barbara Warren  
Executive Director, Citizens Environmental Coalition  
Albany, New York

Peter F. Infante, Dr.P.H., F.A.C.E.  
Adjunct Professor, School of Public Health, George Washington University  
Washington, DC

Copies provided to:

Dr. Joseph Graziano, NAS Committee Chair, Review of EPA's Arsenic Cancer Methodology  
Dr. Linda Birnbaum, Director, NIEHS  
Gina McCarthy Administrator US EPA  
Avi Garbow, Esq. US EPA Office of General Counsel  
Justina Fugh, Esq. US EPA Ethics Office  
Jon Jacobs, Esq. Jacobs and Stotsky PLLC  
Dr. Thomas Burke, Johns Hopkins University  
Dr. Lauren Zeiss, California Department of Environmental Protection  
Dr. Michael Wilson, California Department of Industrial Relations

Dr. Jennifer Sass, NRDC  
Dr. Urvashi Rangan, Consumer Union  
Tony Corbo, Food and Water Watch  
Dr. Kathleen Rest, Union of Concerned Scientists  
Dr. Fiorella Belpoggi, Ramazzini Institute  
Dr. Michael Jacobsen, Citizens for Science in the Public Interest  
Dr. Philip Landrigan, Mt. Sinai Medical Center, New York City  
Angela Bradbery, Public Citizen  
Michael Wright, United Steel Workers Union-Health and Safety  
Peg Seminario, AFL-CIO-Health and Safety  
Senator Edward Markey, Massachusetts  
Senator Elizabeth Warren, Massachusetts  
Senator Carl Schumer, New York  
Senator Kirsten Gillibrand, New York  
Senator Debbie Stabinow, Michigan  
Senator Carl Levi, Michigan  
Senator Barbara Boxer, California  
Senator Bernie Sanders, Vermont  
Representative John Persell, Minnesota  
Daniel Pearson, US House of Representatives  
Doug Pasternak, US House of Representatives

## **Attachment A. Meeting speakers and agenda**

Industry-sponsored speakers are highlighted in yellow and non-industry speakers are in green. 37 of the 46 slots for arsenic and 40 of the 41 slots for hexavalent chromium are filled by those with financial interests in the outcome of EPA's evaluation. (Note Liz Geltman is an attorney.)

Source: [http://www.epa.gov/ncea/iris/publicmeeting/iris\\_bimonthly-jun2014/mtg\\_agenda.htm](http://www.epa.gov/ncea/iris/publicmeeting/iris_bimonthly-jun2014/mtg_agenda.htm)

### **IRIS Bimonthly Public Meeting    Wednesday, June 25, 2014**

#### **10:00 am Hexavalent Chromium**

##### **Introduction**

- Catherine Gibbons and Alan Sasso, EPA/IRIS Assessment Managers

##### **Science issue 1: Cancer classification by inhalation**

Facilitated discussion of science issue with all attendees, including:

- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology, on behalf of American Chemistry Council
- Mark Harris, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies

##### **Science issue 2: Noncancer hazards to be considered**

Facilitated discussion of science issue with all attendees, including:

- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology, on behalf of American Chemistry Council
- Ted Simon, Ted Simon LLC
- Mark Harris, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies
- Chad Thompson, ToxStrategies

12:45  
pm

##### **Science issue 3: Susceptibility of mice to gastrointestinal toxicity**

Facilitated discussion of science issue with all attendees, including:

- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology, on behalf of American Chemistry Council
- Mark Harris, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies
- Chad Thompson, ToxStrategies
- Elliot Gordon, Elliot Gordon Consulting LLC, on behalf of ToxStrategies

##### **Science issue 4: Utility of subchronic histopathological data**

Facilitated discussion of science issue with all attendees, including:

- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology, on behalf of American Chemistry Council
- Mark Harris, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies
- Chad Thompson, ToxStrategies
- Elliot Gordon, Elliot Gordon Consulting LLC, on behalf of ToxStrategies

- Jeffrey Wolf, EPL Inc, on behalf of ToxStrategies

### 3:00 pm **Science issue 5: Database for reproductive and developmental effects**

Facilitated discussion of science issue with all attendees, including:

- Liz Geltman, City University of New York School of Public Health
- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology
- Mark Harris, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies

### **Science issue 6: Relation between anemia and oral tumors in rats**

Facilitated discussion of science issue with all attendees, including:

- Sean Hays, Summit Toxicology
- Chris Kirman, Summit Toxicology, on behalf of American Chemistry Council
- Susan Borghoff, ToxStrategies
- Mark Harris, ToxStrategies
- Laurie Haws, ToxStrategies
- Deborah Proctor, ToxStrategies
- Mina Suh, ToxStrategies

## **Thursday, June 26, 2014**

### 9:30 am **Inorganic Arsenic**

Introduction

- Reeder Sams, John Cowden, Janice Lee, EPA/IRIS Assessment Managers

### **Science issue 1: Application of NRC recommendations**

Facilitated discussion of science issue with all attendees, including:

- Nancy Beck, American Chemistry Council (via telephone)
- Kimberly Wise, American Chemistry Council
- Jennifer McPartland, Environmental Defense Fund
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Lorenz Rhomberg, Gradient Corp, on behalf of Arsenic Science Task Force
- Tracey Woodruff, University of California San Francisco
- Samuel Cohen, University of Nebraska Medical Center

### **Science issue 2: Risk-of-bias approach**

Facilitated discussion of science issue with all attendees, including:

- Nancy Beck, American Chemistry Council (via telephone)
- Kimberly Wise, American Chemistry Council
- Chuck Elkins, Chuck Elkins & Associates
- Liz Geltman, City University of New York School of Public Health
- Jennifer McPartland, Environmental Defense Fund
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Juleen Lam, Johns Hopkins University
- Patrice Sutton, University of California San Francisco (via telephone)
- Tracey Woodruff, University of California San Francisco (via telephone)
- Samuel Cohen, University of Nebraska Medical Center

1:15 pm **Science issue 3: Integrating results of epidemiologic studies**

Facilitated discussion of science issue with all attendees, including:

- Nancy Beck, American Chemistry Council (via telephone)
- Kimberly Wise, American Chemistry Council
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Juleen Lam, Johns Hopkins University
- Tracey Woodruff, University of California San Francisco
- Samuel Cohen, University of Nebraska Medical Center

3:00 pm **Science issue 4: Concordance of effects between humans and animals**

Facilitated discussion of science issue with all attendees, including:

- Kimberly Wise, American Chemistry Council
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Samuel Cohen, University of Nebraska Medical Center

**Science issue 5: Upstream biological events for clinical disease endpoints**

Facilitated discussion of science issue with all attendees, including:

- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Samuel Cohen, University of Nebraska Medical Center

**Friday, June 27, 2014**

9:30 am **Inorganic Arsenic (continued)**

**Science issue 6: Mode-of-action and adverse outcome pathways**

Facilitated discussion of science issue with all attendees, including:

- Nancy Beck, American Chemistry Council (via telephone)
- Kimberly Wise, American Chemistry Council
- Robinan Gentry, Environ Corp, on behalf of Electric Power Research Institute
- Jennifer McPartland, Environmental Defense Fund
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Samuel Cohen, University of Nebraska Medical Center

**Science issue 7: In-utero exposure leading to disease later in life**

Facilitated discussion of science issue with all attendees, including:

- John DeSesso, Exponent Inc, on behalf of Arsenic Science Task Force
- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp
- Samuel Cohen, University of Nebraska Medical Center

1:00 pm **Science issue 8 (new): Implications of nutritional factors on internal dose and response**

Facilitated discussion of science issue with all attendees, including:

- Joyce Tsuji, Exponent Inc, on behalf of Rio Tinto
- Barbara Beck, Gradient Corp